

(7) In subpart G of this part we identify several reporting and recordkeeping items for making demonstrations and getting approval related to various special compliance provisions.

(8) In §§ 1054.725, 1054.730, and 1054.735 we specify certain records related to averaging, banking, and trading.

(b) We specify the following requirements related to equipment and component certification in 40 CFR part 1060:

(1) In 40 CFR 1060.20 we give an overview of principles for reporting information.

(2) In 40 CFR part 1060, subpart C, we identify a wide range of information required to certify products.

(3) In 40 CFR 1060.301 we require manufacturers to make engines or equipment available for our testing if we make such a request.

(4) In 40 CFR 1060.505 we specify information needs for establishing various changes to published test procedures.

(c) We specify the following requirements related to testing in 40 CFR part 1065:

(1) In 40 CFR 1065.2 we give an overview of principles for reporting information.

(2) In 40 CFR 1065.10 and 1065.12 we specify information needs for establishing various changes to published test procedures.

(3) In 40 CFR 1065.25 we establish basic guidelines for storing test information.

(4) In 40 CFR 1065.695 we identify data that may be appropriate for collecting during testing of in-use engines using portable analyzers.

(d) We specify the following requirements related to the general compliance provisions in 40 CFR part 1068:

(1) In 40 CFR 1068.5 we establish a process for evaluating good engineering judgment related to testing and certification.

(2) In 40 CFR 1068.25 we describe general provisions related to sending and keeping information.

(3) In 40 CFR 1068.27 we require manufacturers to make engines available for our testing or inspection if we make such a request.

(4) In 40 CFR 1068.105 we require equipment manufacturers to keep cer-

tain records related to duplicate labels from engine manufacturers.

(5) In 40 CFR 1068.120 we specify recordkeeping related to rebuilding engines.

(6) In 40 CFR part 1068, subpart C, we identify several reporting and recordkeeping items for making demonstrations and getting approval related to various exemptions.

(7) In 40 CFR part 1068, subpart D, we identify several reporting and recordkeeping items for making demonstrations and getting approval related to importing engines.

(8) In 40 CFR 1068.450 and 1068.455 we specify certain records related to testing production-line engines in a selective enforcement audit.

(9) In 40 CFR 1068.501 we specify certain records related to investigating and reporting emission-related defects.

(10) In 40 CFR 1068.525 and 1068.530 we specify certain records related to recalling nonconforming engines.

#### APPENDIX I TO PART 1054—SUMMARY OF PREVIOUS EMISSION STANDARDS

The following standards apply to nonroad spark-ignition engines produced before the model years specified in § 1054.1:

(a) *Handheld engines.* Phase 1 and Phase 2 standards apply for handheld engines as specified in 40 CFR 90.103 and summarized in the following tables:

TABLE 1 TO APPENDIX I—PHASE 1 EMISSION STANDARDS FOR HANDHELD ENGINES (g/kW-hr)<sup>a</sup>

Engine displacement class	HC	NO <sub>x</sub>	CO
Class III .....	295	5.36	805
Class IV .....	241	5.36	805
Class V .....	161	5.36	603

<sup>a</sup>Phase 1 standards are based on testing with new engines only.

TABLE 2 TO APPENDIX I—PHASE 2 EMISSION STANDARDS FOR HANDHELD ENGINES (g/kW-hr)<sup>a</sup>

Engine displacement class	HC+NO <sub>x</sub>	CO
Class III .....	50	805
Class IV .....	50	805
Class V .....	72	603

<sup>a</sup>The standards shown are the fully phased-in standards. See 40 CFR 90.103 for standards that applied during the phase-in period.

(b) *Nonhandheld engines.* Phase 1 and Phase 2 standards apply for nonhandheld engines as

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specified in 40 CFR 90.103 and summarized in the following tables:

**TABLE 3 TO APPENDIX I—PHASE 1 EMISSION STANDARDS FOR NONHANDHELD ENGINES (g/kW-hr)<sup>a</sup>**

Engine displacement class	HC+NO <sub>x</sub>	CO
Class I .....	16.1	519
Class II .....	13.4	519

<sup>a</sup>Phase 1 standards are based on testing with new engines only.

**TABLE 4 TO APPENDIX I—PHASE 2 EMISSION STANDARDS FOR NONHANDHELD ENGINES (g/kW-hr)**

Engine displacement class	HC+NO <sub>x</sub>	NMHC+NO <sub>x</sub>	CO
Class I-A .....	50		610
Class I-B .....	40	37	610
Class I .....	16.1	14.8	610
Class II <sup>a</sup> .....	12.1	11.3	610

<sup>a</sup>The Class II standards shown are the fully phased-in standards. See 40 CFR 90.103 for standards that applied during the phase-in period.

### APPENDIX II TO PART 1054—DUTY CYCLES FOR LABORATORY TESTING

(a) Test handheld engines with the following steady-state duty cycle:

G3 mode No.	Engine speed <sup>a</sup>	Torque (per-cent) <sup>b</sup>	Weighting factors
1 .....	Rated speed .....	100	0.85
2 .....	Warm idle .....	0	0.15

<sup>a</sup>Test engines at the specified speeds as described in § 1054.505.

<sup>b</sup>Test engines at 100 percent torque by setting operator demand to maximum. Control torque during idle at its warm idle speed as described in 40 CFR 1065.510.

(b) Test nonhandheld engines with one of the following steady-state duty cycles:

(1) The following duty cycle applies for discrete-mode testing:

G2 mode No. <sup>a</sup>	Torque (per-cent) <sup>b</sup>	Weighting factors
1 .....	100	0.09
2 .....	75	0.2
3 .....	50	0.29
4 .....	25	0.3
5 .....	10	0.07
6 .....	0	0.05

<sup>a</sup>Control engine speed as described in § 1054.505. Control engine speed for Mode 6 as described in § 1054.505(c) for idle operation.

<sup>b</sup>The percent torque is relative to the value established for full-load torque, as described in § 1054.505.

(2) The following duty cycle applies for ramped-modal testing:

RMC mode <sup>a</sup>	Time in mode (sec-onds)	Torque (per-cent) <sup>b, c</sup>
1a Steady-state .....	41	0
1b Transition .....	20	*
2a Steady-state .....	135	100
2b Transition .....	20	*
3a Steady-state .....	112	10
3b Transition .....	20	*
4a Steady-state .....	337	75
4b Transition .....	20	*
5a Steady-state .....	518	25
5b Transition .....	20	*
6a Steady-state .....	494	50
6b Transition .....	20	*
7 Steady-state .....	43	0

\* Linear transition.

<sup>a</sup>Control engine speed as described in § 1054.505. Control engine speed for Mode 6 as described in § 1054.505(c) for idle operation.

<sup>b</sup>Advance from one mode to the next within a 20-second transition phase. During the transition phase, command a linear progression from the torque setting of the current mode to the torque setting of the next mode.

<sup>c</sup>The percent torque is relative to the value established for full-load torque, as described in § 1054.505.

## PART 1060—CONTROL OF EVAPORATIVE EMISSIONS FROM NEW AND IN-USE NONROAD AND STATIONARY EQUIPMENT

### Subpart A—Overview and Applicability

Sec.

1060.1 Which products are subject to this part's requirements?

1060.5 Do the requirements of this part apply to me?

1060.10 How is this part organized?

1060.15 Do any other CFR parts apply to me?

1060.30 Submission of information.

### Subpart B—Emission Standards and Related Requirements

1060.101 What evaporative emission requirements apply under this part?

1060.102 What permeation emission control requirements apply for fuel lines?

1060.103 What permeation emission control requirements apply for fuel tanks?

1060.104 What running loss emission control requirements apply?

1060.105 What diurnal requirements apply for equipment?

1060.120 What emission-related warranty requirements apply?

1060.125 What maintenance instructions must I give to buyers?

1060.130 What installation instructions must I give to equipment manufacturers?

1060.135 How must I label and identify the engines and equipment I produce?

1060.137 How must I label and identify the fuel-system components I produce?